

Appendix E

RF Test Data for 5.8GWIFI (Conducted Measurement)

Product Name: PicassoTab_ Z13

Test Model: PicassoTab_ Z13

Environmental Conditions

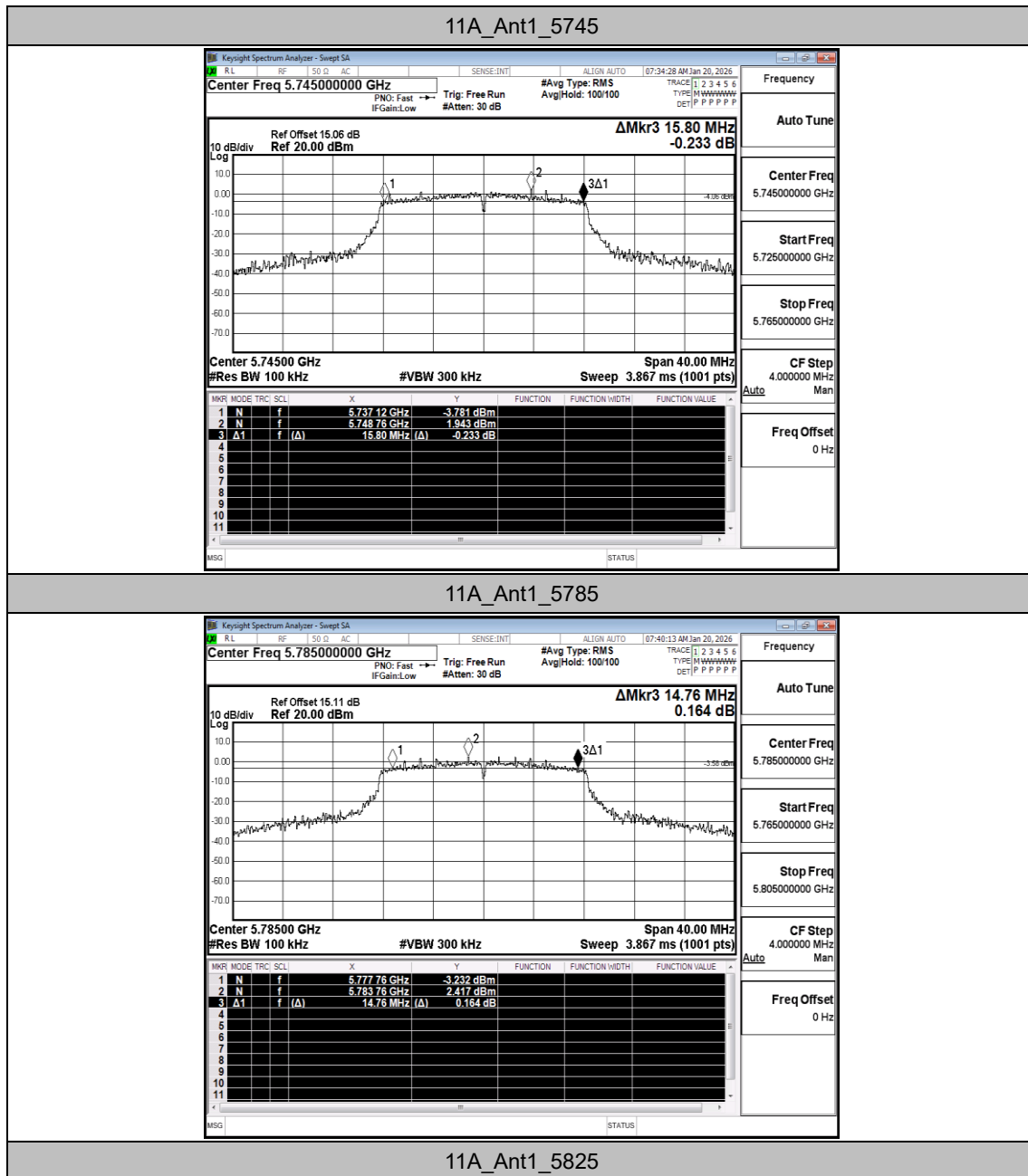
Temperature:	23.1°C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

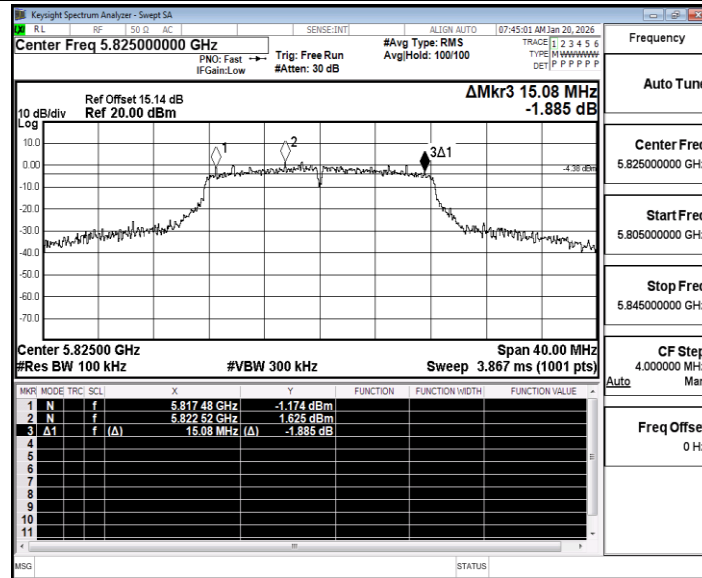
E.1 Emission Bandwidth

Test Result B4

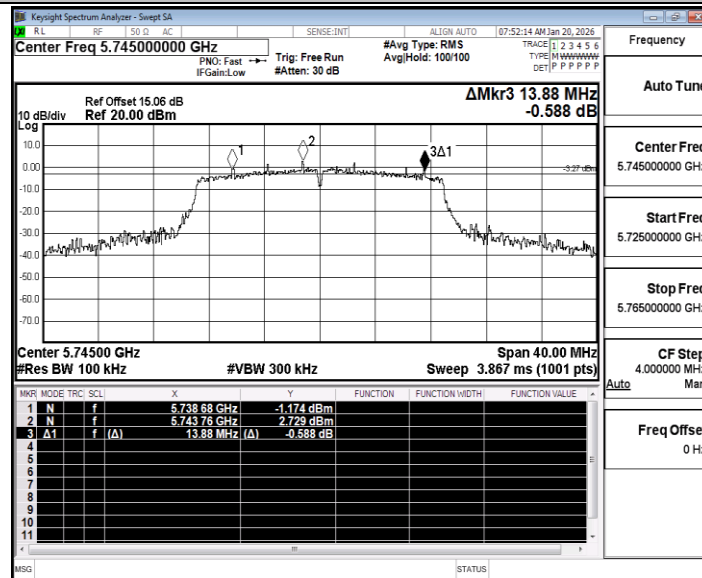
TestMode	Antenna	Freq (MHz)	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11A	Ant1	5745	15.800	5737.120	5752.920	0.5	PASS
		5785	14.760	5777.760	5792.520	0.5	PASS
		5825	15.080	5817.480	5832.560	0.5	PASS
11N20SISO	Ant1	5745	13.880	5738.680	5752.560	0.5	PASS
		5785	15.040	5777.480	5792.520	0.5	PASS
		5825	13.920	5817.440	5831.360	0.5	PASS
11N40SISO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
		5795	35.040	5777.480	5812.520	0.5	PASS
11AC20SISO	Ant1	5745	15.040	5737.440	5752.480	0.5	PASS
		5785	14.440	5778.120	5792.560	0.5	PASS
		5825	14.040	5818.480	5832.520	0.5	PASS
11AC40SISO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
		5795	33.840	5778.680	5812.520	0.5	PASS
11AC80SISO	Ant1	5775	75.200	5737.400	5812.600	0.5	PASS

Test Graphs B4

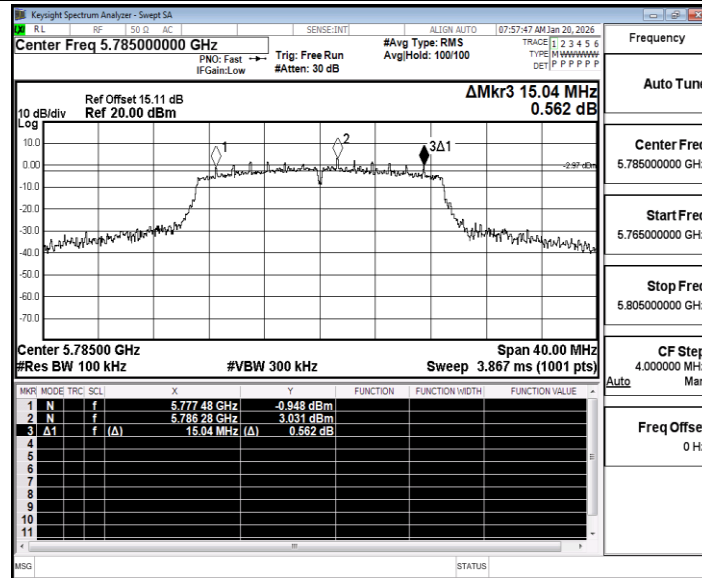




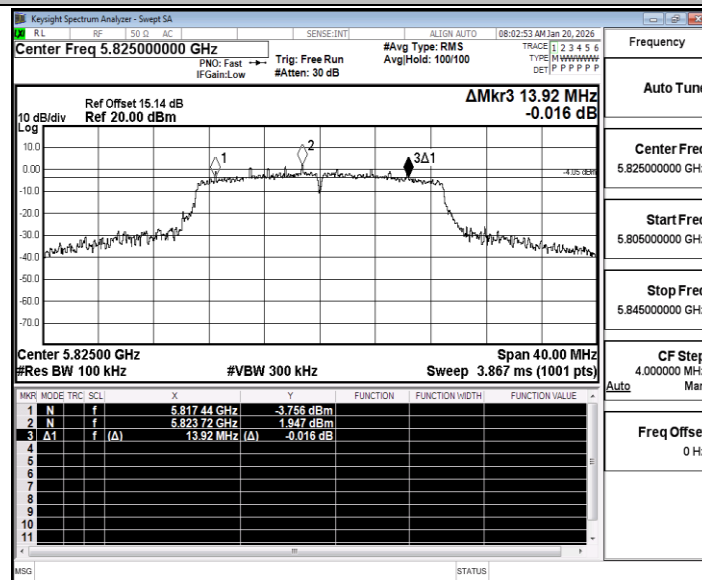
11N20SISO_Ant1_5745



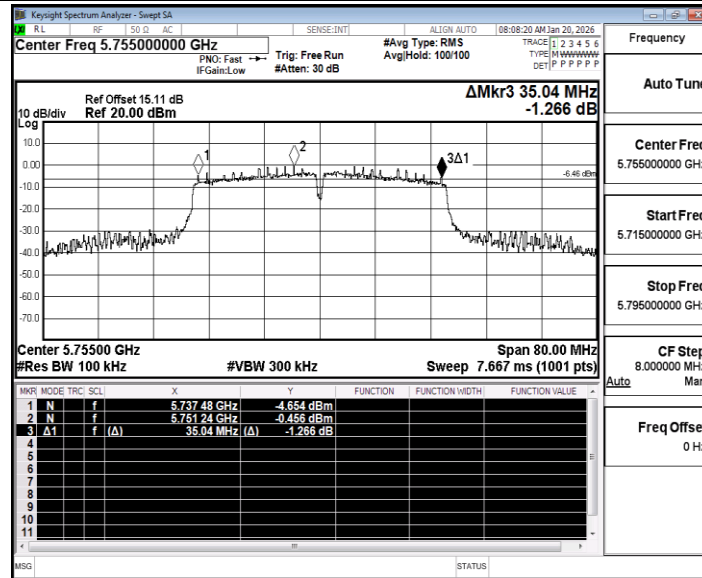
11N20SISO_Ant1_5785



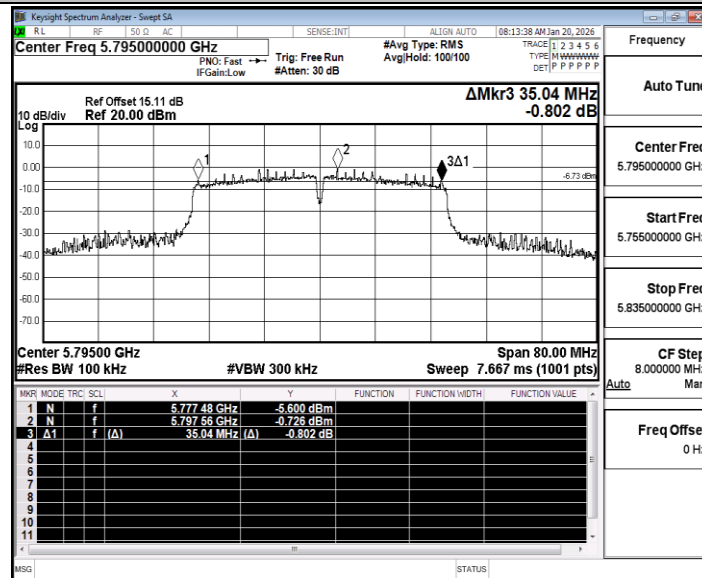
11N20SISO_Ant1_5825



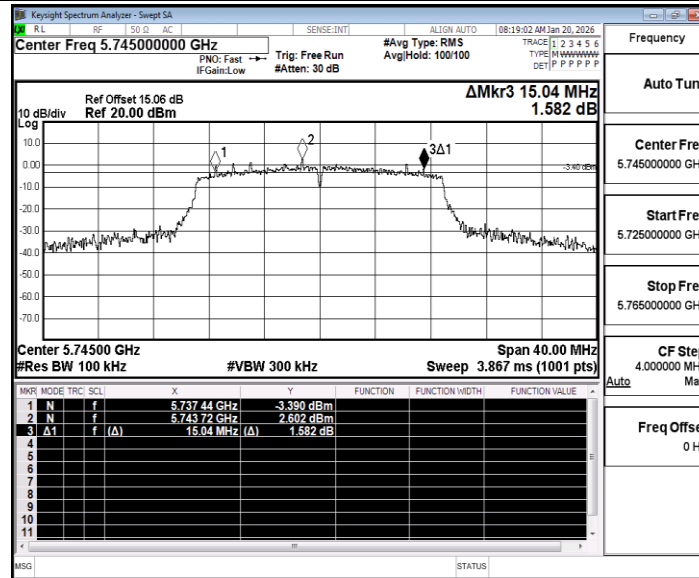
11N40SISO_Ant1_5755



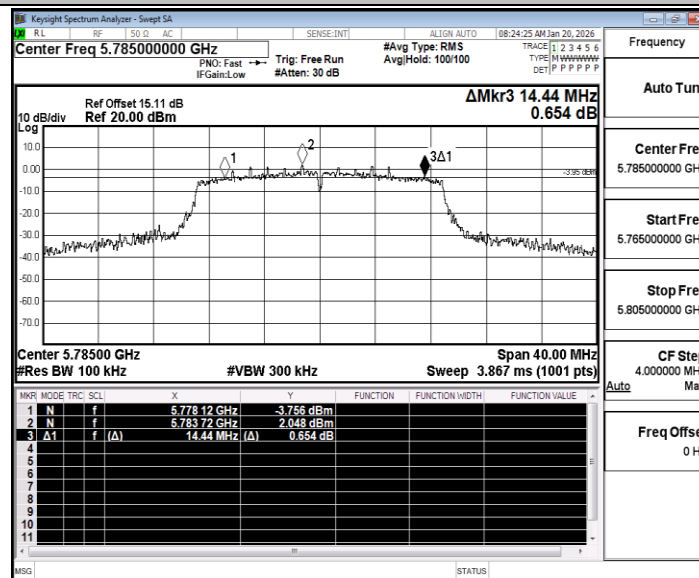
11N40SISO_Ant1_5795



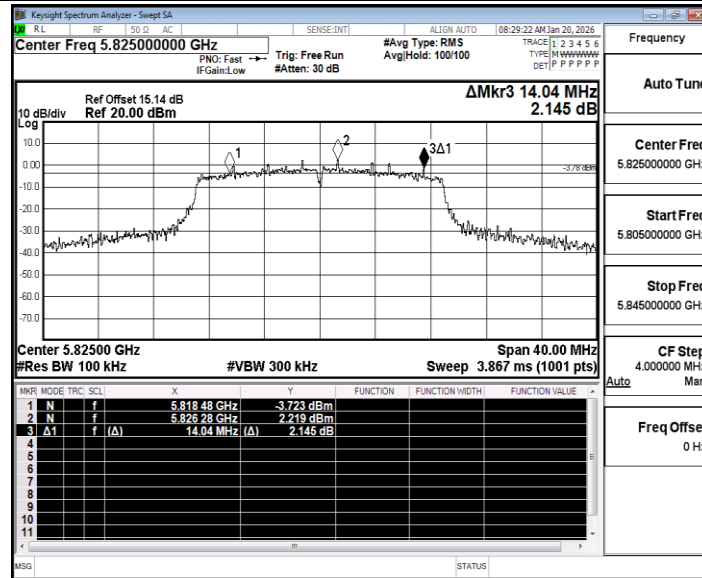
11AC20SISO_Ant1_5745



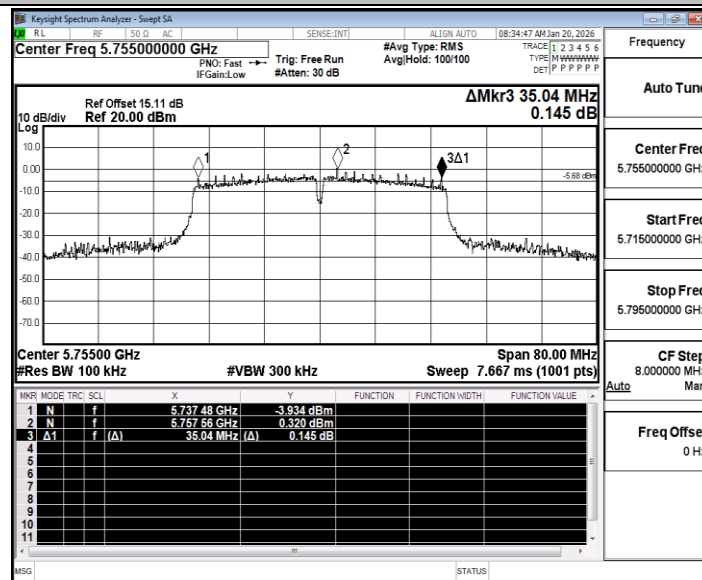
11AC20SISO_Ant1_5785



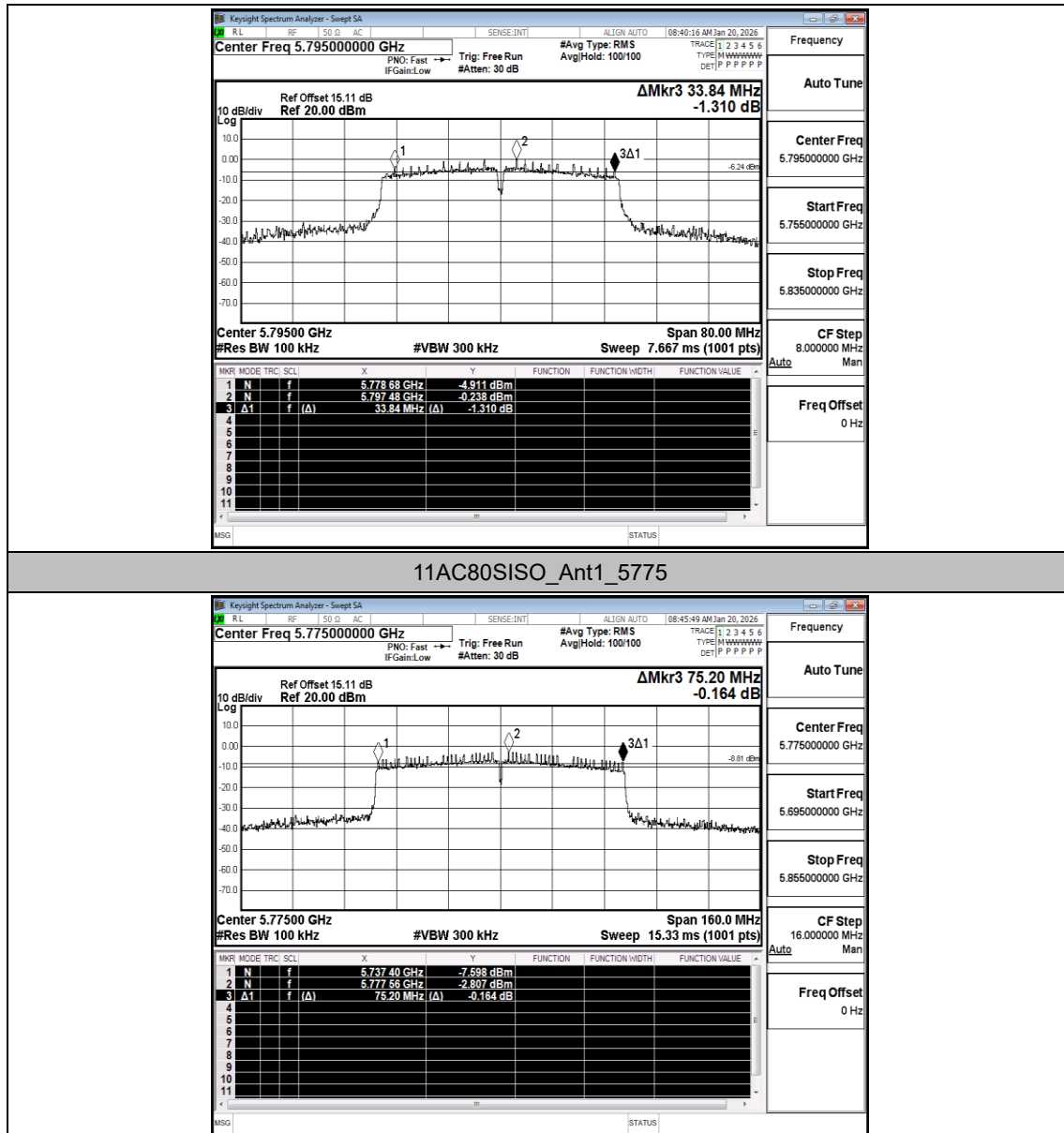
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



E.2 Maximum conducted output power

Test Result

Test Mode	Antenna	Freq (MHz)	TPC Mode	Measured Power [dBm]	DC Factor [dB]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	NA	14.98	0.12	15.10	≤30.00	PASS
		5785	NA	15.08	0.12	15.20	≤30.00	PASS
		5825	NA	14.26	0.12	14.38	≤30.00	PASS
11N20SISO	Ant1	5745	NA	14.43	0.13	14.56	≤30.00	PASS
		5785	NA	14.05	0.10	14.15	≤30.00	PASS
		5825	NA	13.66	0.13	13.79	≤30.00	PASS
11N40SISO	Ant1	5755	NA	14.35	0.26	14.61	≤30.00	PASS
		5795	NA	13.89	0.26	14.15	≤30.00	PASS
11AC20SISO	Ant1	5745	NA	14.49	0.13	14.62	≤30.00	PASS
		5785	NA	14.19	0.13	14.32	≤30.00	PASS
		5825	NA	13.83	0.16	13.99	≤30.00	PASS
11AC40SISO	Ant1	5755	NA	14.39	0.26	14.65	≤30.00	PASS
		5795	NA	14.00	0.26	14.26	≤30.00	PASS
11AC80SISO	Ant1	5775	NA	13.95	0.38	14.33	≤30.00	PASS

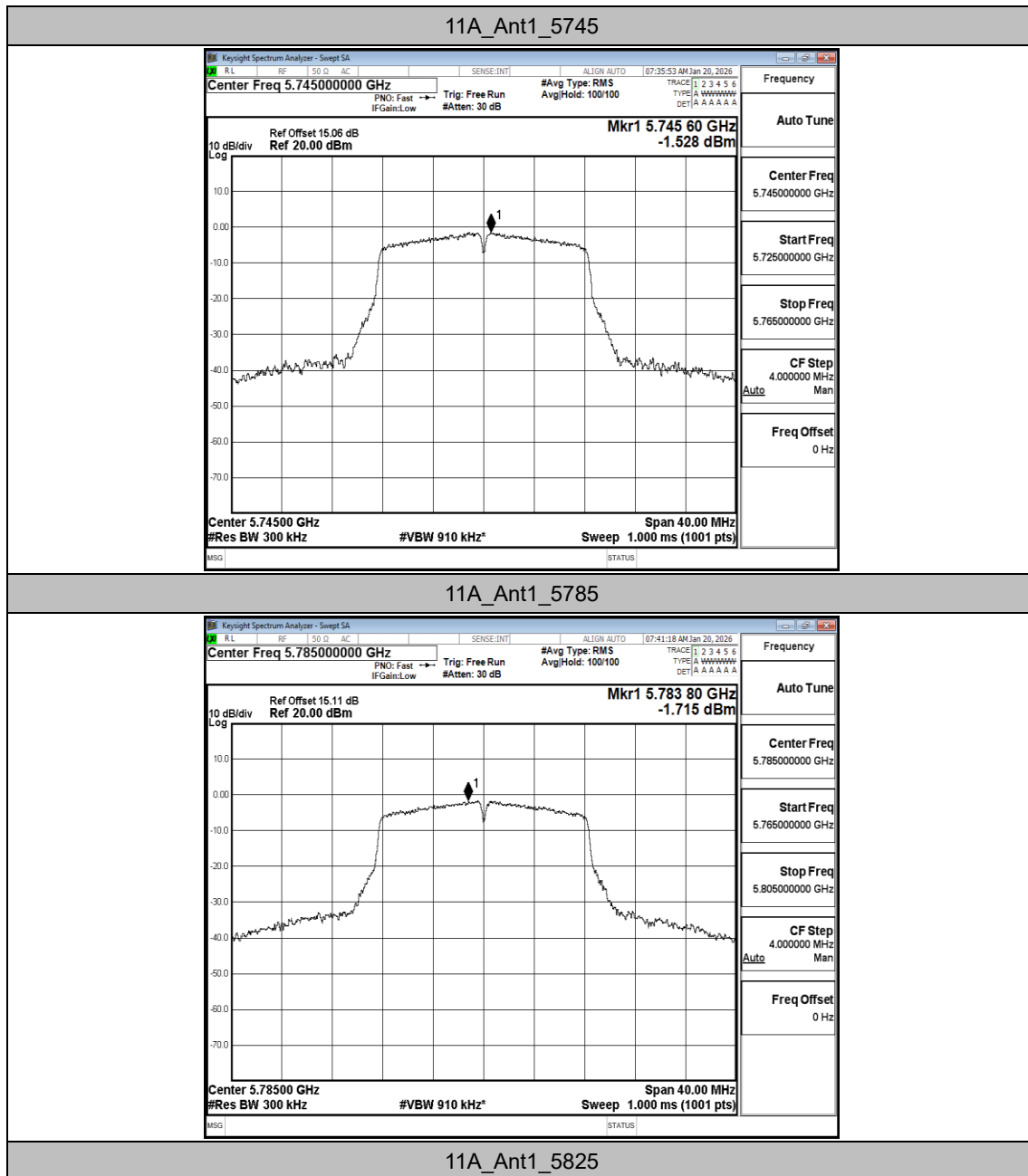
E.3 Maximum power spectral density

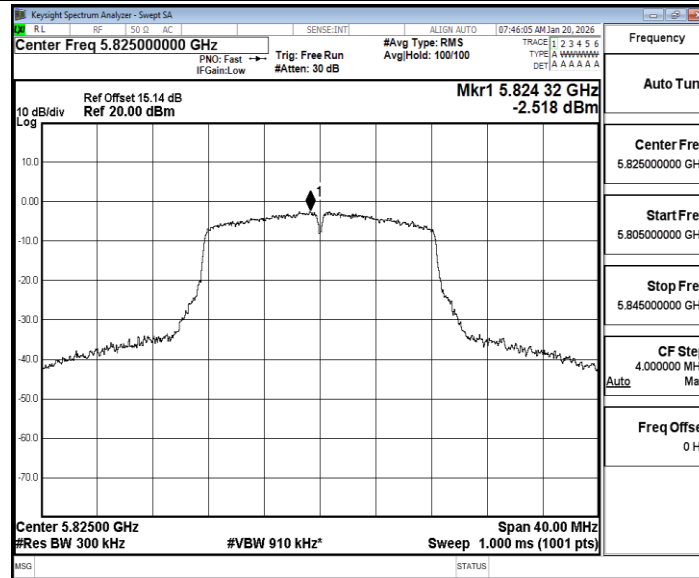
Test Result

TestMode	Antenna	Freq (MHz)	Raw Data [dBm/MHz]	DC Factor	RBW Factor	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
11A	Ant1	5745	-1.53	0.12	2.22	0.81	≤30.00	PASS
		5785	-1.72	0.12	2.22	0.62	≤30.00	PASS
		5825	-2.52	0.12	2.22	-0.18	≤30.00	PASS
11N20SISO	Ant1	5745	-1.78	0.13	2.22	0.57	≤30.00	PASS
		5785	-2.8	0.10	2.22	-0.48	≤30.00	PASS
		5825	-3.14	0.13	2.22	-0.79	≤30.00	PASS
11N40SISO	Ant1	5755	-5.47	0.26	2.22	-2.99	≤30.00	PASS
		5795	-5.76	0.26	2.22	-3.28	≤30.00	PASS
11AC20SISO	Ant1	5745	-2.05	0.13	2.22	0.30	≤30.00	PASS
		5785	-2.51	0.13	2.22	-0.16	≤30.00	PASS
		5825	-3.02	0.16	2.22	-0.64	≤30.00	PASS
11AC40SISO	Ant1	5755	-5.25	0.26	2.22	-2.77	≤30.00	PASS
		5795	-5.8	0.26	2.22	-3.32	≤30.00	PASS
11AC80SISO	Ant1	5775	-8.74	0.38	2.22	-6.14	≤30.00	PASS

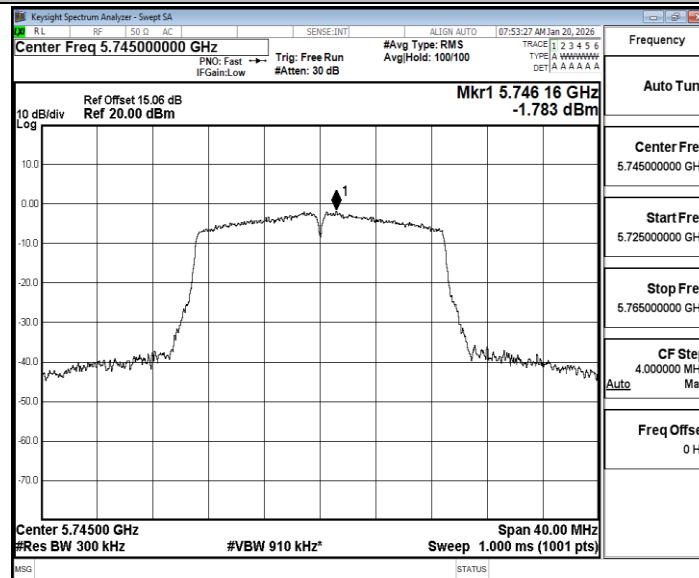
Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

Test Graphs

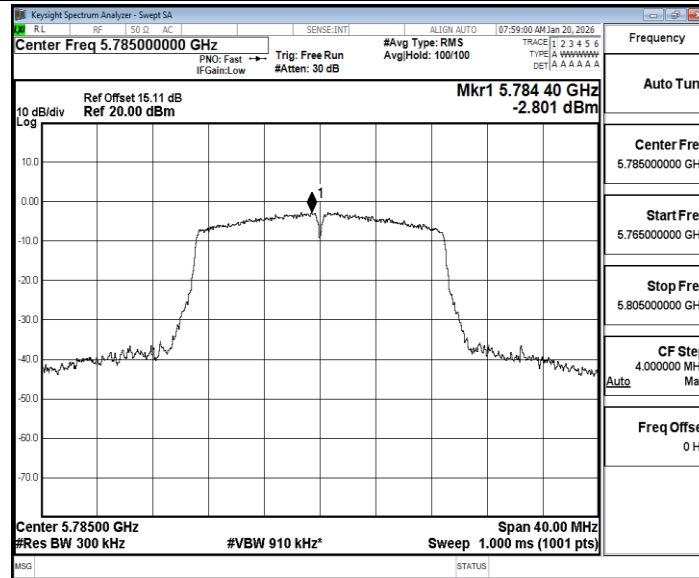




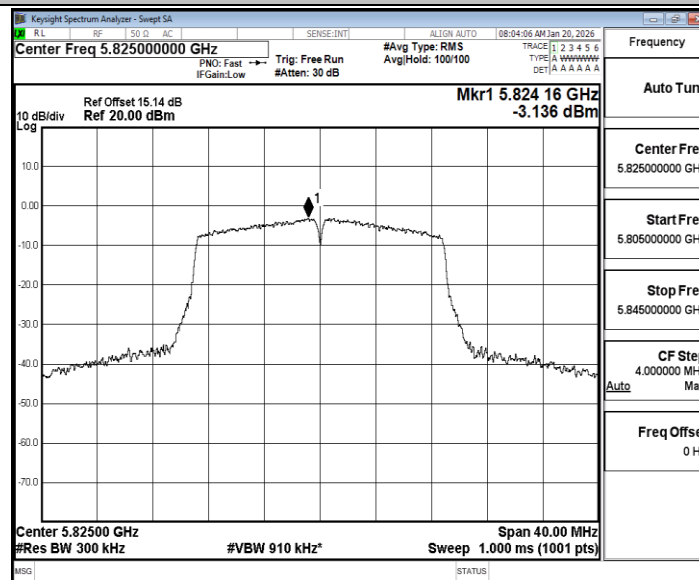
11N20SISO_Ant1_5745



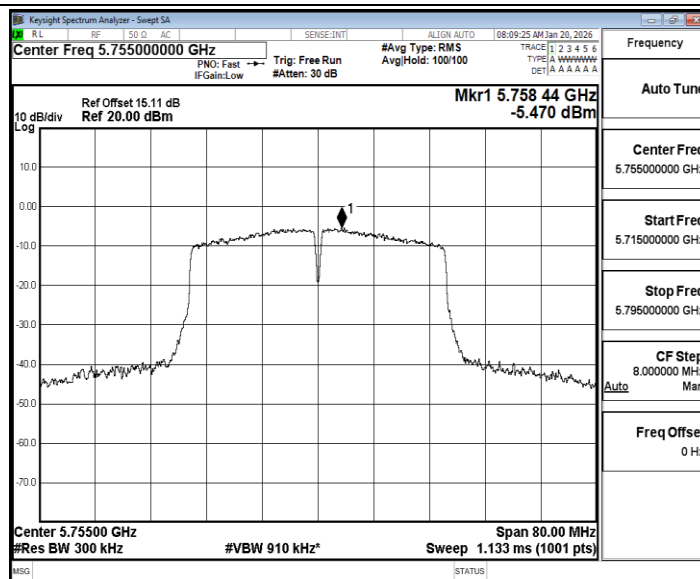
11N20SISO_Ant1_5785



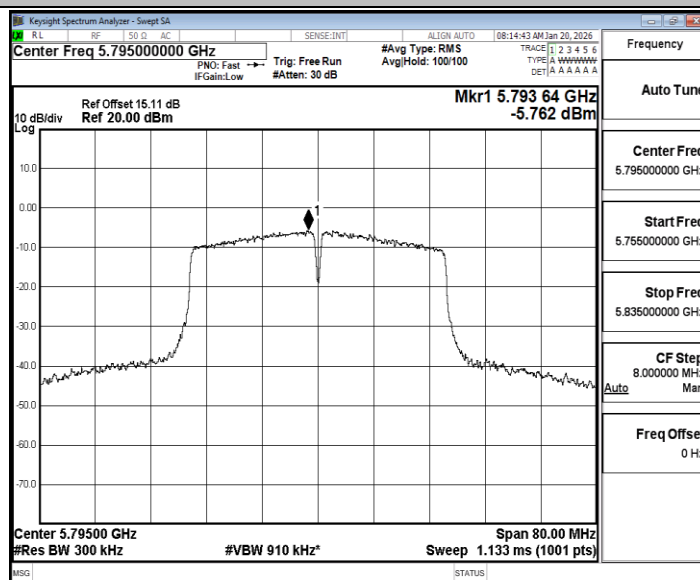
11N20SISO_Ant1_5825



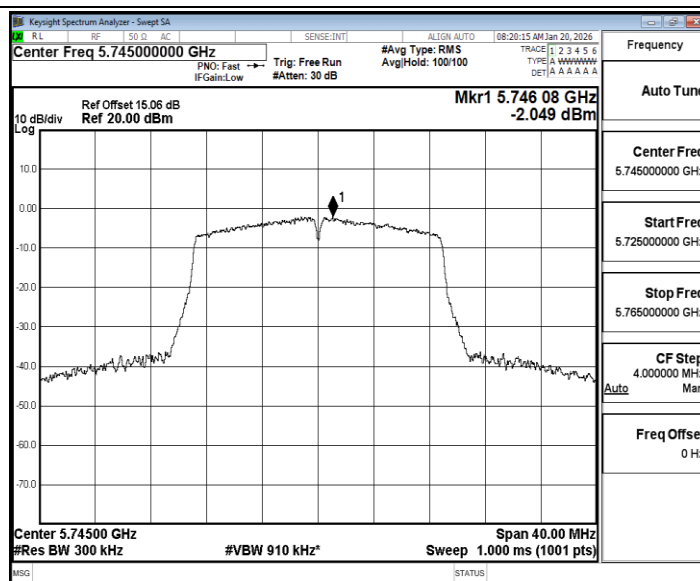
11N40SISO_Ant1_5755



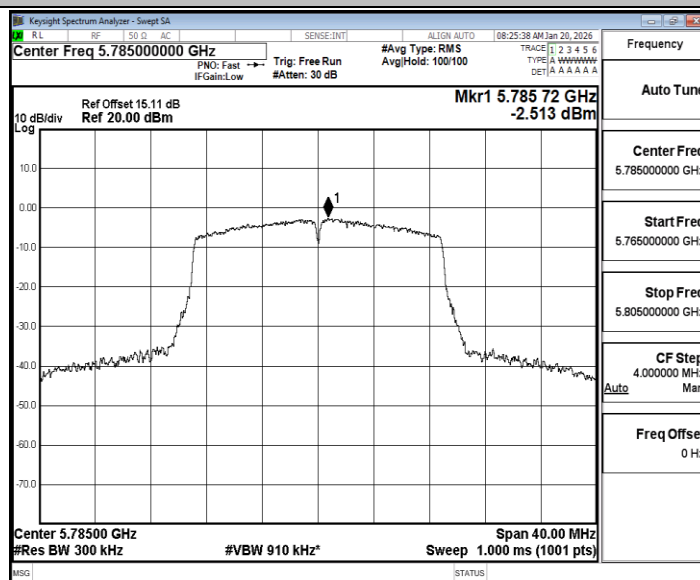
11N40SISO_Ant1_5795



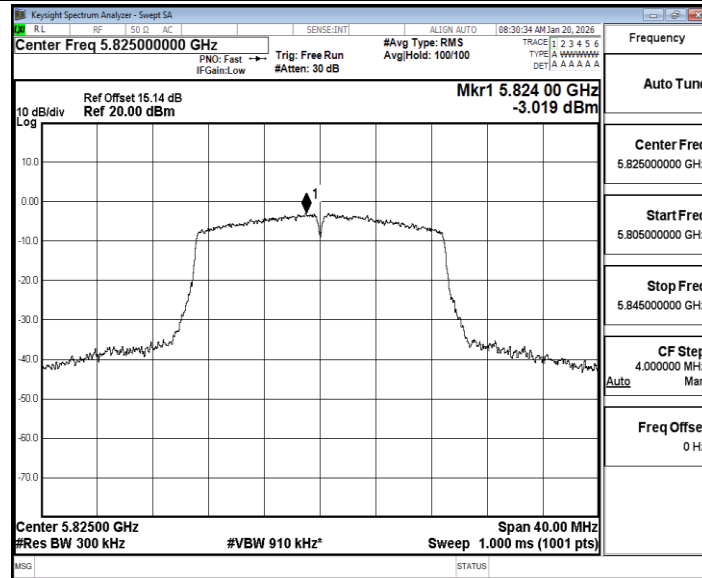
11AC20SISO_Ant1_5745



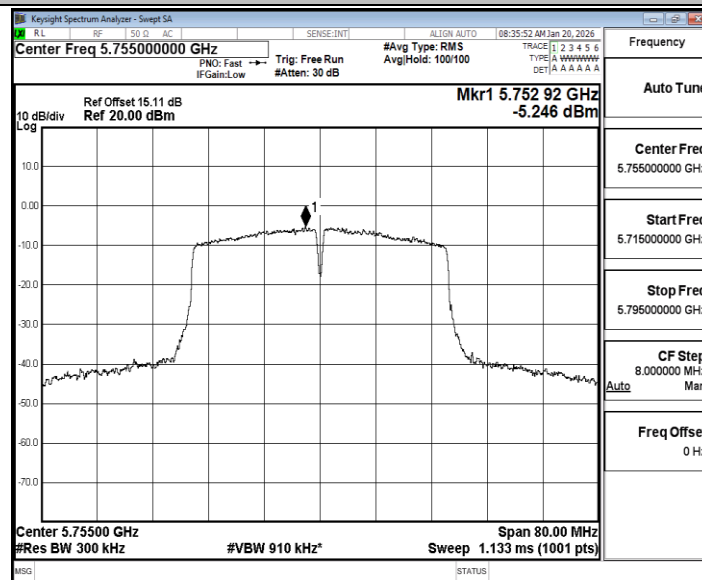
11AC20SISO_Ant1_5785



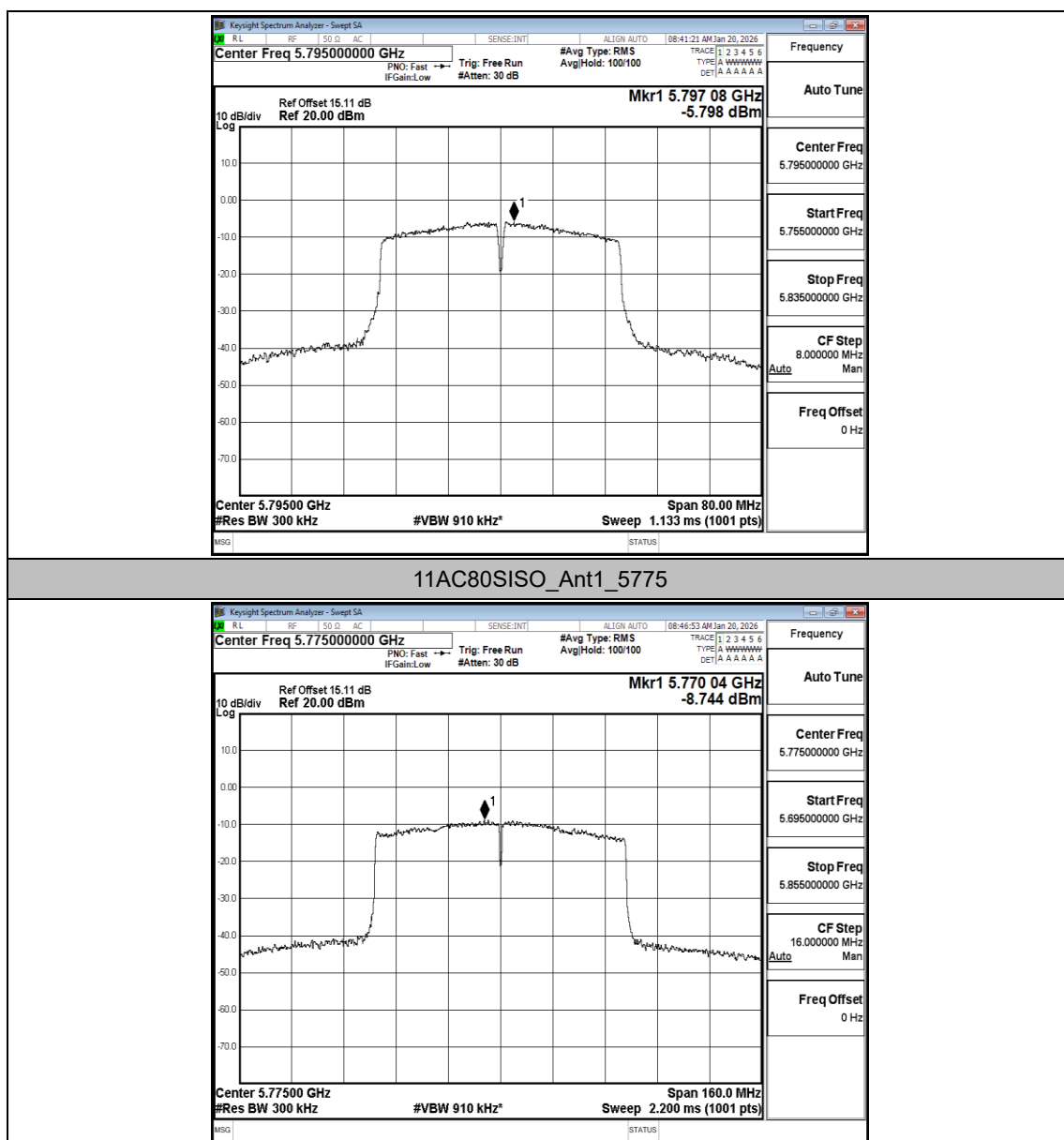
11AC20SISO_Ant1_5825



11AC40SISO_Ant1_5755



11AC40SISO_Ant1_5795



E.4 Emissions in Restricted Bands

Test Result

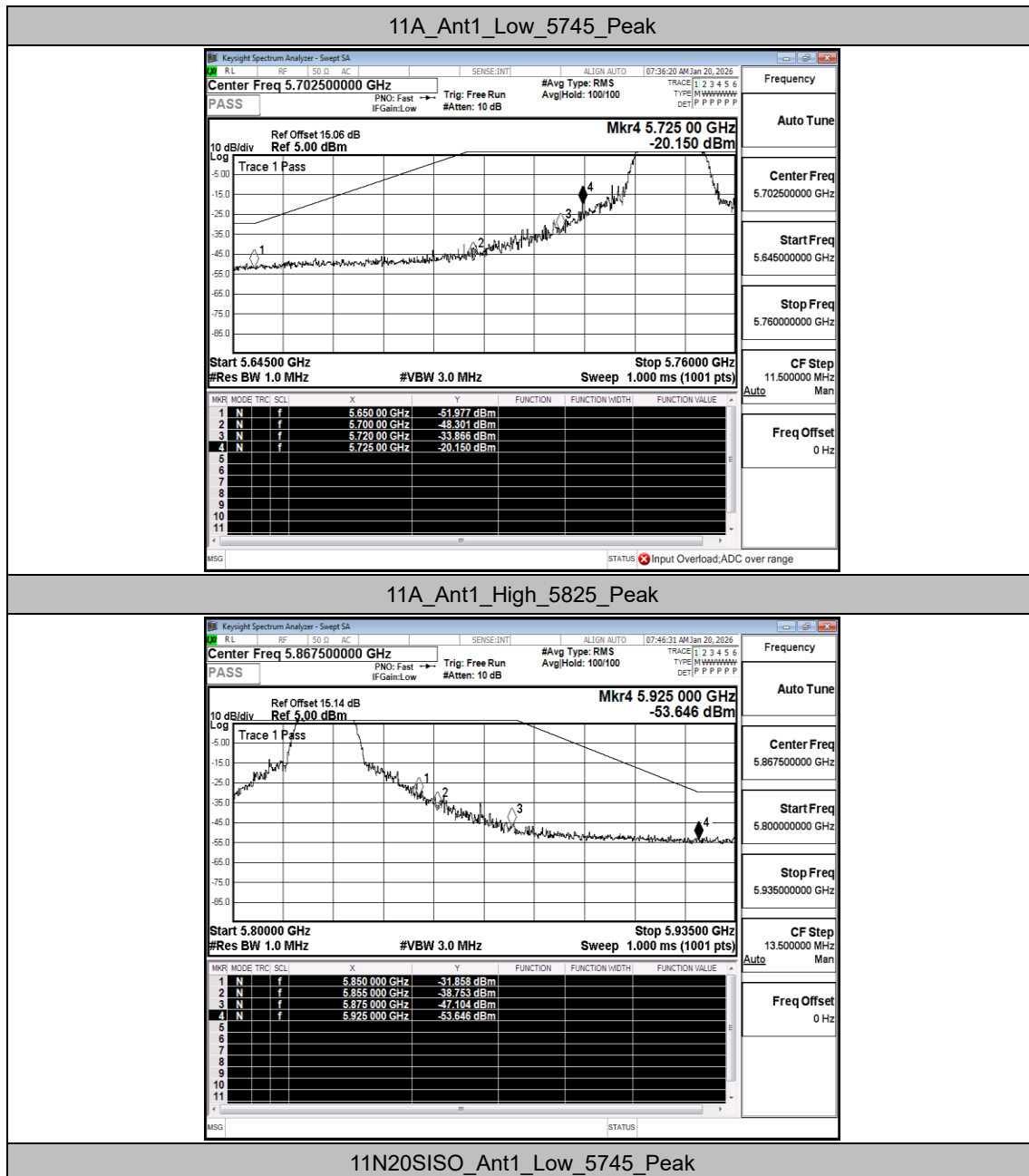
TestMode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
11A	Ant1	Low	5745	Peak	5650.000	-51.977	≤-29.68	2.68	0.00	---	---	PASS
				Peak	5700.000	-48.3	≤7.32	2.68	1.43	---	---	PASS
				Peak	5720.000	-33.87	≤12.92	2.68	0.00	---	---	PASS
				Peak	5725.000	-20.15	≤24.32	2.68	1.43	- - -	- - -	PASS
		High	5825	Peak	5850.000	-31.858	≤24.32	2.68	0.00	---	---	PASS
				Peak	5855.000	-38.75	≤12.92	2.68	1.43	---	---	PASS
				Peak	5875.000	-47.1	≤7.32	2.68	0.00	---	---	PASS
				Peak	5925.000	-53.65	≤-27.00	2.68	0.00	- - -	- - -	PASS
11N20SISO	Ant1	Low	5745	Peak	5650.000	-51.823	≤-29.68	2.68	0.00	---	---	PASS
				Peak	5700.000	-45.66	≤7.32	2.68	0.00	---	---	PASS
				Peak	5720.000	-30.96	≤12.92	2.68	0.00	---	---	PASS
				Peak	5725.000	-26.64	≤24.32	2.68	0.00	- - -	- - -	PASS
		High	5825	Peak	5850.000	-31.582	≤24.32	2.68	0.00	---	---	PASS
				Peak	5855.000	-33.27	≤12.92	2.68	0.00	---	---	PASS
				Peak	5875.000	-48.95	≤7.32	2.68	0.00	---	---	PASS
				Peak	5925.000	-53.36	≤-27.00	2.68	0.00	- - -	- - -	PASS
11N40SISO	Ant1	Low	5755	Peak	5650.000	-49.865	≤-29.68	2.68	0.00	---	---	PASS
				Peak	5700.000	-38.16	≤7.32	2.68	0.00	---	---	PASS
				Peak	5720.000	-26.31	≤12.92	2.68	0.00	---	---	PASS
				Peak	5725.000	-16.16	≤24.32	2.68	0.00	- - -	- - -	PASS
		High	5795	Peak	5850.000	-30.96	≤24.32	2.68	0.00	---	---	PASS
				Peak	5855.000	-36.91	≤12.92	2.68	0.00	---	---	PASS
				Peak	5875.000	-44.7	≤7.32	2.68	0.00	---	---	PASS
				Peak	5925.000	-53.59	≤-27.00	2.68	0.00	- - -	- - -	PASS
11AC20SISO	Ant1	Low	5745	Peak	5650.000	-52.096	≤-29.68	2.68	0.00	---	---	PASS
				Peak	5700.000	-40.23	≤7.32	2.68	0.00	---	---	PASS
				Peak	5720.000	-30.71	≤12.92	2.68	0.00	---	---	PASS
				Peak	5725.000	-27.06	≤24.32	2.68	0.00	- - -	- - -	PASS
		High	5825	Peak	5850.000	-30.652	≤24.32	2.68	0.00	---	---	PASS
				Peak	5855.000	-31.29	≤12.92	2.68	0.00	---	---	PASS
				Peak	5875.000	-47.72	≤7.32	2.68	0.00	---	---	PASS
				Peak	5925.000	-52.86	≤-27.00	2.68	0.00	- - -	- - -	PASS
11AC40SISO	Ant1	Low	5755	Peak	5650.000	-49.728	≤-29.68	2.68	0.00	---	---	PASS
				Peak	5700.000	-35.05	≤7.32	2.68	0.00	---	---	PASS

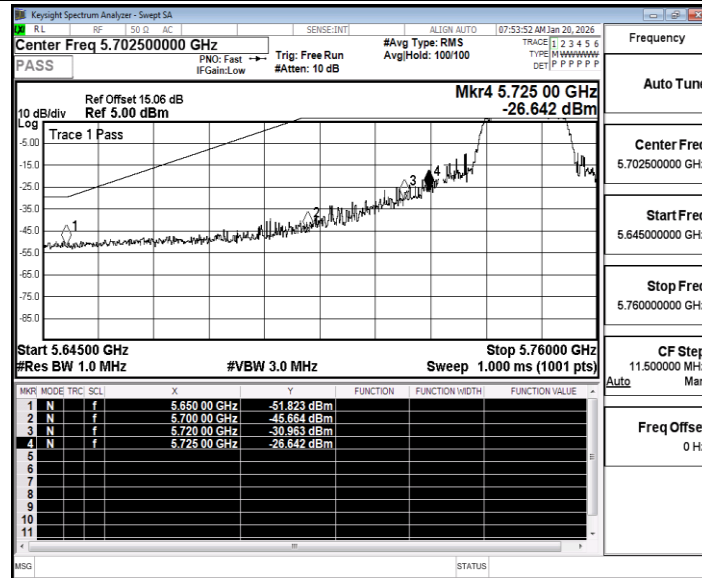
11AC80SISO	Ant1			Peak	5720.000	-23.72	≤ 12.92	2.68	0.00	---	---	PASS
				Peak	5725.000	-20.1	≤ 24.32	2.68	0.00	- --	- --	PASS
		High	5795	Peak	5850.000	-39.888	≤ 24.32	2.68	0.00	---	---	PASS
				Peak	5855.000	-39.59	≤ 12.92	2.68	0.00	---	---	PASS
				Peak	5875.000	-46.89	≤ 7.32	2.68	0.00	---	---	PASS
				Peak	5925.000	-54.77	≤ -27.00	2.68	0.00	- --	- --	PASS
		Low	5775	Peak	5650.000	-42.287	≤ -29.68	2.68	0.00	---	---	PASS
				Peak	5700.000	-29.98	≤ 7.32	2.68	0.00	---	---	PASS
				Peak	5720.000	-26.55	≤ 12.92	2.68	0.00	---	---	PASS
				Peak	5725.000	-20.91	≤ 24.32	2.68	0.00	- --	- --	PASS
		High	5775	Peak	5850.000	-31.954	≤ 24.32	2.68	0.00	---	---	PASS
				Peak	5855.000	-29.75	≤ 12.92	2.68	0.00	---	---	PASS
				Peak	5875.000	-37.77	≤ 7.32	2.68	0.00	---	---	PASS
				Peak	5925.000	-49.49	≤ -27.00	2.68	0.00	- --	- --	PASS

Note:

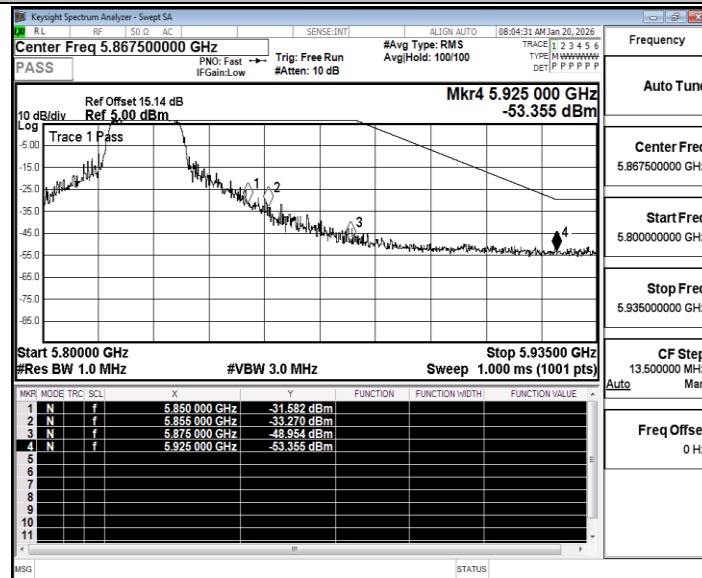
1. The Antenna Gain is compensated in the graph.
2. For transmitters operating in 5150-5350 GHz band and 5470-5725 GHz band: The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

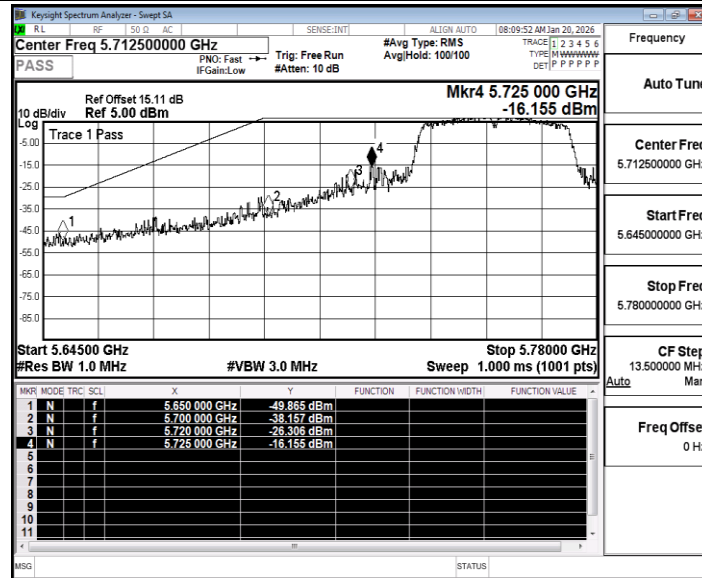




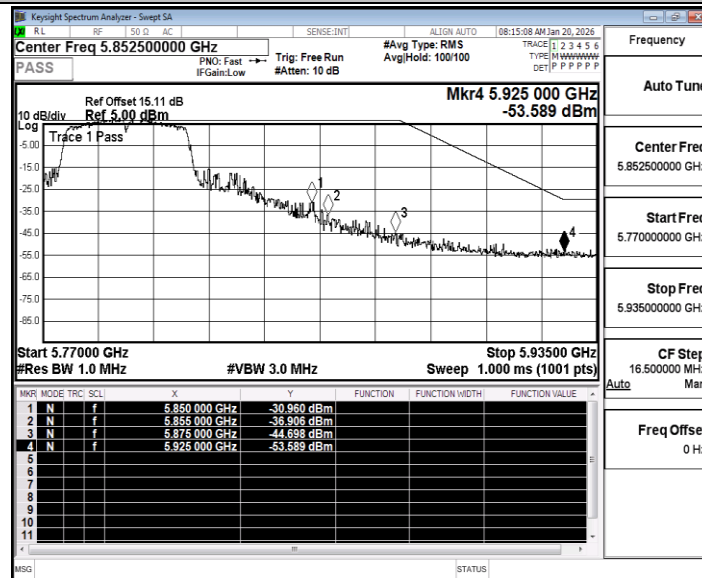
11N20SISO_Ant1_High_5825_Peak



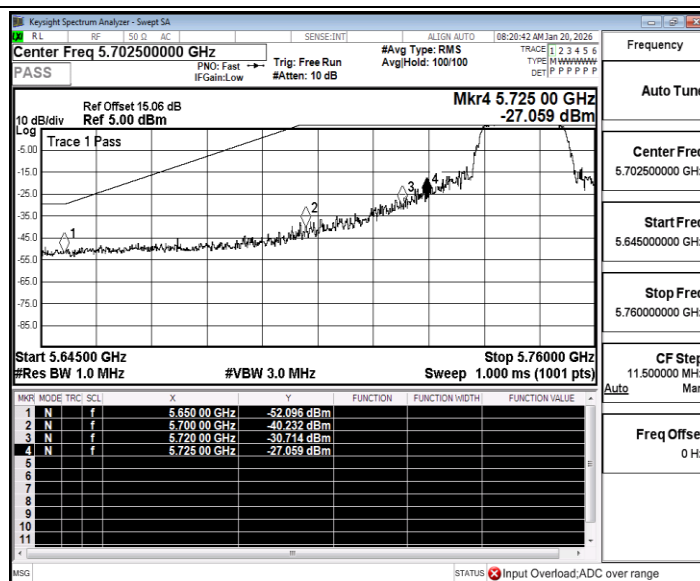
11N40SISO_Ant1_Low_5755_Peak



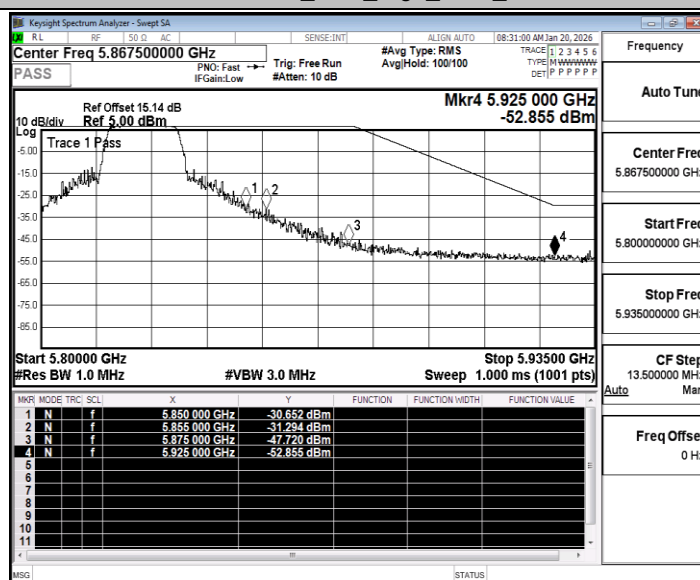
11N40SISO_Ant1_High_5795_Peak



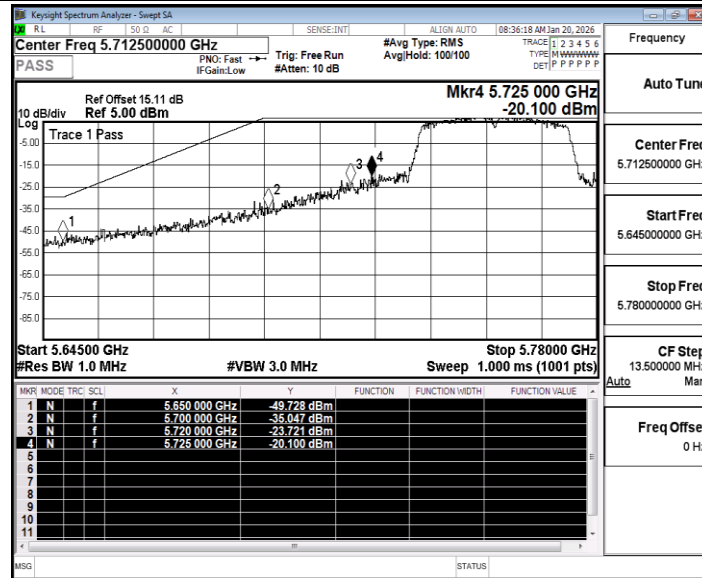
11AC20SISO_Ant1_Low_5745_Peak



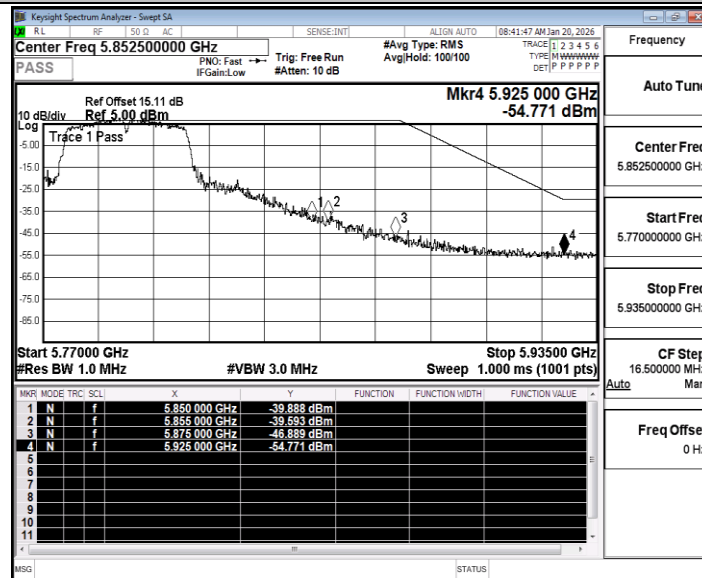
11AC20SISO_Ant1_High_5825_Peak



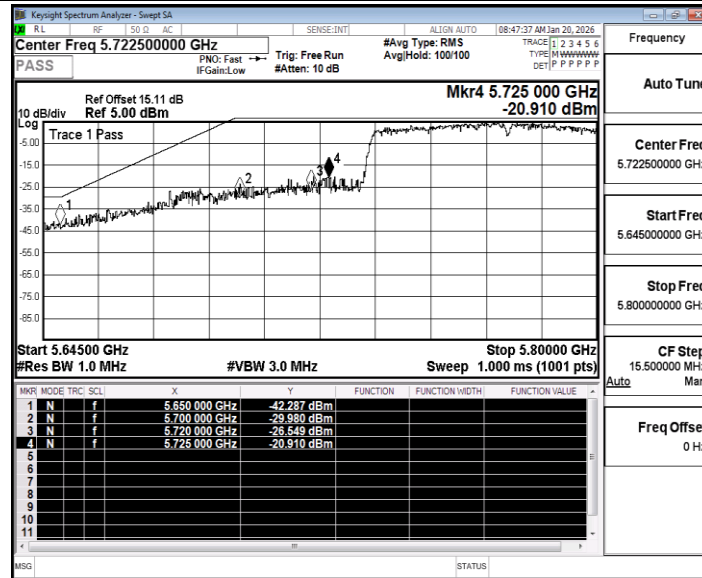
11AC40SISO_Ant1_Low_5755_Peak



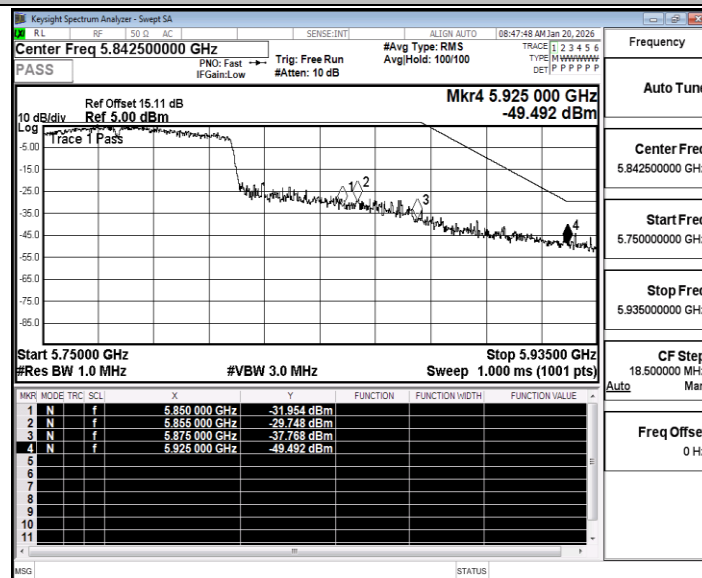
11AC40SISO_Ant1_High_5795_Peak



11AC80SISO_Ant1_Low_5775_Peak



11AC80SISO_Ant1_High_5775_Peak



E.5 Frequency Stability

Test Result

TestMode	Antenna	Freq (MHz)	Voltage					Verdict
			Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	
11A	Ant1	5745	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-40000.00	-6.962576	20	PASS
		5785	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-20000.00	-3.457217	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5825	NV	NT	0.00	0.000000	20	PASS
			LV	NT	20000.00	3.433476	20	PASS
			HV	NT	-20000.00	-3.433476	20	PASS
11N20SI SO	Ant1	5745	NV	NT	20000.00	3.481288	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5785	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5825	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
11N40SI SO	Ant1	5755	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-40000.00	-6.950478	20	PASS
		5795	NV	NT	-40000.00	-6.902502	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-40000.00	-6.902502	20	PASS
11AC20S ISO	Ant1	5745	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5785	NV	NT	0.00	0.000000	20	PASS
			LV	NT	20000.00	3.457217	20	PASS
			HV	NT	-20000.00	-3.457217	20	PASS
		5825	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-20000.00	-3.433476	20	PASS
11AC40S	Ant1	5755	NV	NT	0.00	0.000000	20	PASS

ISO			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5795	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-40000.00	-6.902502	20	PASS
11AC80S ISO	Ant1	5775	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-80000.00	-13.852814	20	PASS
			HV	NT	-160000.00	-27.705628	20	FAIL

Temperature								
TestMode	Antenna	Freq (MHz)	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	-30	-20000.00	-3.481288	20	PASS
			NV	-20	20000.00	3.481288	20	PASS
			NV	-10	-20000.00	-3.481288	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	-20000.00	-3.481288	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5785	NV	-30	0.00	0.000000	20	PASS
			NV	-20	20000.00	3.457217	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5825	NV	-30	20000.00	3.433476	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
11N20SI SO	Ant1	5745	NV	-30	0.00	0.000000	20	PASS
			NV	-20	20000.00	3.481288	20	PASS

			NV	-10	-20000.00	-3.481288	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	20000.00	3.481288	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	20000.00	3.481288	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5785	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	20000.00	3.457217	20	PASS
			NV	20	-20000.00	-3.457217	20	PASS
			NV	30	-20000.00	-3.457217	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	-20000.00	-3.457217	20	PASS
		5825	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	-20000.00	-3.433476	20	PASS
			NV	10	20000.00	3.433476	20	PASS
			NV	20	-20000.00	-3.433476	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	-20000.00	-3.433476	20	PASS
			NV	50	0.00	0.000000	20	PASS
11N40SI SO	Ant1	5755	NV	-30	0.00	0.000000	20	PASS
			NV	-20	40000.00	6.950478	20	PASS
			NV	-10	-40000.00	-6.950478	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	-40000.00	-6.950478	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	-40000.00	-6.950478	20	PASS
		5795	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-40000.00	-6.902502	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	-40000.00	-6.902502	20	PASS

			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
11AC20S ISO	Ant1	5745	NV	-30	20000.00	3.481288	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-40000.00	-6.962576	20	PASS
			NV	0	20000.00	3.481288	20	PASS
			NV	10	20000.00	3.481288	20	PASS
			NV	20	-20000.00	-3.481288	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	20000.00	3.481288	20	PASS
			NV	50	-20000.00	-3.481288	20	PASS
		5785	NV	-30	20000.00	3.457217	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	20000.00	3.457217	20	PASS
			NV	40	20000.00	3.457217	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5825	NV	-30	0.00	0.000000	20	PASS
			NV	-20	-20000.00	-3.433476	20	PASS
			NV	-10	20000.00	3.433476	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	20000.00	3.433476	20	PASS
11AC40S ISO	Ant1	5755	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	-40000.00	-6.950478	20	PASS
			NV	30	-40000.00	-6.950478	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	-40000.00	-6.950478	20	PASS
		5795	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-40000.00	-6.902502	20	PASS

			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	40000.00	6.902502	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
11AC80S ISO	Ant1	5775	NV	-30	-80000.00	-13.852814	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-80000.00	-13.852814	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS

E.6 Duty Cycle

Test Result

TestMode	Antenna	Freq (MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	DC Factor	Limit	Verdict
11A	Ant1	5745	1.39	1.43	97.20	0.12	---	---
		5785	1.39	1.43	97.20	0.12	---	---
		5825	1.39	1.43	97.20	0.12	---	---
11N20SISO	Ant1	5745	1.30	1.34	97.01	0.13	---	---
		5785	1.31	1.34	97.76	0.10	---	---
		5825	1.29	1.33	96.99	0.13	---	---
11N40SISO	Ant1	5755	0.64	0.68	94.12	0.26	---	---
		5795	0.65	0.69	94.20	0.26	---	---
11AC20SISO	Ant1	5745	1.31	1.35	97.04	0.13	---	---
		5785	1.31	1.35	97.04	0.13	---	---
		5825	1.31	1.36	96.32	0.16	---	---
11AC40SISO	Ant1	5755	0.65	0.69	94.20	0.26	---	---
		5795	0.65	0.69	94.20	0.26	---	---
11AC80SISO	Ant1	5775	0.33	0.36	91.67	0.38	---	---

Test Graphs

